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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,645	07/24/2000	Robert E. Bridges	FAO-0098	5432
23413 7590 01/13/2009 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER LEE, HWA S				
ART UNIT 2886		PAPER NUMBER		
NOTIFICATION DATE 01/13/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ustpatentmail@cantorcolburn.com

Office Action Summary

Application No.

09/621,645

Applicant(s)

BRIDGES ET AL.

Examiner

Hwa S. Lee (Andrew)

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/23/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 21-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date: _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart et al (US 5,305, 091).

Gelbart et al (Gelbart hereinafter) show an optical coordinate measuring system comprising:

a stationary portion having at least a first laser radiation source (32)

a first optical detector (38)

a rotatable portion (3) that is rotatable with respect to the stationary portion; and

at least a first optical fiber system (33, 36) for optically interconnecting the first laser radiation source and the first optical detector with an emission end of the first optical fiber system, the emission end disposed on the rotatable portion for emitting laser radiation to the remote target and for receiving laser radiation reflected from the remote target, wherein an emission direction of the laser radiation is controlled according to the rotation of the rotatable portion.

Although Gelbart does not expressly show the laser and the detector on a stationary portion, it would be obvious to for the laser and the detector to be on a common platform in order to ease portability and save space.

Although Gelbart does not expressly state the portion (3) is rotated, the claim only requires that the rotatable portion be rotatable relative to the radiation source and the detector. In this case since there is nothing to prevent the rotation, the portion 3 is rotatable, and it would be inherent that the laser radiation is controlled by initially aligning the portion (3) in the general direction of the target (2). Furthermore, element (24) which is part of element (3) rotates relative to the laser and detector.

In addition, at the time of the invention, one of ordinary skill in the art would have relocated the optical elements of 26, 27, 28, 29, 34, 35, and 39 in order to reduce the chances of misalignment between said elements and the mirror 22. It has be held that the mere relocation of essential working parts only require routine skill in the art. In re Japiske, 86 USPQ 70.

With respect to claims 2 and 3, please see fibers 30, 31, 33, 36, coupler 3, 28, 27. The use of "coupler" does not specify whether the coupler is a physical coupler, indirectly mounted on a common platform, or optically coupled.

With respect to claim 4, the orientations corresponding to the remote target are determined.

With respect to claim 5, Gelbart does not expressly show multiple lasers to produce the multiple beams. Official Notice is taken that it is well known to use multiple lasers to produce multiple beams in order to use lower power lasers.

With respect to claims 6-8 an, please see last paragraph with respect to claim 1.

With respect to claim 9, please see lens 26.

With respect to claim 10, please see retroreflector 5.

With respect to claim 11, please see Figure 1 where the positions are known for X_{1-5} , Y_{1-5}

With respect to claim 12, please see 39.

With respect to claim 13-15, please see motors 25 and 23. Official Notice is taken that encoders are well known in the art, and at the time of the invention, one of ordinary skill in the art would have used an encoder in order to control the rotation of the mirrors 23 and 25 to the desired amount of rotation.

With respect to claim 16-18, please see column 1.

With respect to claim 19 and 20, these functions would have been performed manually and to automate a formerly manual function automatically only involves routine skill in the art and at the time of the invention, one of ordinary skill in the art would have used cameras in order to reduce the amount of manual work.

Response to Arguments

3. Applicant's arguments filed 10/23/08 have been fully considered but they are not persuasive.
4. Applicant argues that Gelbart fails to show a rotatable portion that is rotatable with respect to the stationary portion. The Examiner agrees with Applicant that Gelbart teaches the transceivers 3 and 3a are mounted on stable points. However, claim 1 only requires that the

transceiver be “rotatable with respect to the stationary portion.” Gelbart does not state the transceiver is permanently mounted the stable points. Therefore, the Examiner submits that the transceiver can be removed from the stable points, rotated, and remounted on the stable points. Thus it is submitted that the transceiver is rotatable. Even if the transceiver is mounted on the stable points by screws or bolts, or even glued to the stable points, it is possible to remove the transceiver from the stable points and rotate the transceiver. Thus the transceiver is “rotatable”. Claim 1 does not recite the structure of the present invention that makes the rotatable portion to be rotatable. Citing that an element to be “rotatable” only recites functionally what the element is capable of performing.

5. Applicant argues that element 24 of Gelbart cannot be the claimed rotatable portion of claim 1. The Examiner agrees and withdraws the argument.
6. Applicant argues that Sciaky does not overcome the deficiencies of Gelbart. The Examiner regrets the typographical error of including Sciaky in the second line of paragraph 4 of the Office Action. The Examiner is not relying on Sciaky in the detailed discussion of the grounds of rejection.
7. Applicant argues that the present invention shows “a rigid structure 190 that can be rotated with respect to stationary base 101 by motors 80, 81.” The Examiner submits claim 1 does not recite the structure of motors that rotate the rotatable portion. Claim 1 only requires that the portion be rotatable and does not limit what structure allows the rotatable portion to be rotatable.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwa S. Lee (Andrew) whose telephone number is 571-272-2419. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on 571-272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hwa S. Lee (Andrew)/
Primary Examiner, Art Unit 2886